

DEVELOPING HEALTH ENHANCING PHYSICAL ACTIVITY MODULES FOR HIGHER AND VOCATIONAL EDUCATION

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Teaching in the spotlight: Learning from global communities

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PROJECT GOALS: SPORT PHYSICAL EDUCATION AND COACHING IN HEALTH (SPEACH) PROJECT

- Raising awareness about behavioural change towards an active and healthy lifestyle
- **Developing Health Enhancing Physical Activity (HEPA) modules in Higher Education**
 - **Physical Education Training Education (PETE) &**
 - **Sport coaching education programmes**



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BACKGROUND



- The **Health Enhancing Physical Activity** network in Europe (HEPA) aims to promote a better understanding of health-enhancing physical activity, and give a stronger voice to physical activity promotion in health policy and in other relevant sectors in Europe.

Healthy Lifestyle, Sports and Physical Activity

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BACKGROUND: Children 2-15

	Age (years)					
	All children 2-15	2-4	5-7	8-10	11-12	13-15
	Hours					
Boys						
Weekday	3.3	2.8	2.8	3.0	3.7	4.2
Weekend day	4.2	3.2	3.8	4.3	4.6	5.3
Base	862	216	192	177	124	153
Girls						
Weekday	3.2	2.8	2.7	3.1	3.5	4.3
Weekend day	4.0	3.2	3.9	4.1	3.8	5.1
Base	868	212	184	191	135	146

Sedentary time per day in children, by age and gender, *England 2012 (BHF, 2015)*

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BACKGROUND: Young people and adults

QD1 How often do you exercise or play sport?

	Regularly	With some regularity	Seldom	Never	Don't know
EU28	8%	33%	17%	42%	0%
 Gender					
Man	9%	36%	18%	37%	0%
Woman	7%	30%	16%	47%	0%
 Age					
15-24	11%	53%	17%	19%	0%
25-39	8%	38%	21%	33%	0%
40-54	8%	31%	20%	41%	0%
55 +	8%	22%	12%	58%	0%

Eurobarometer, (March 2014)

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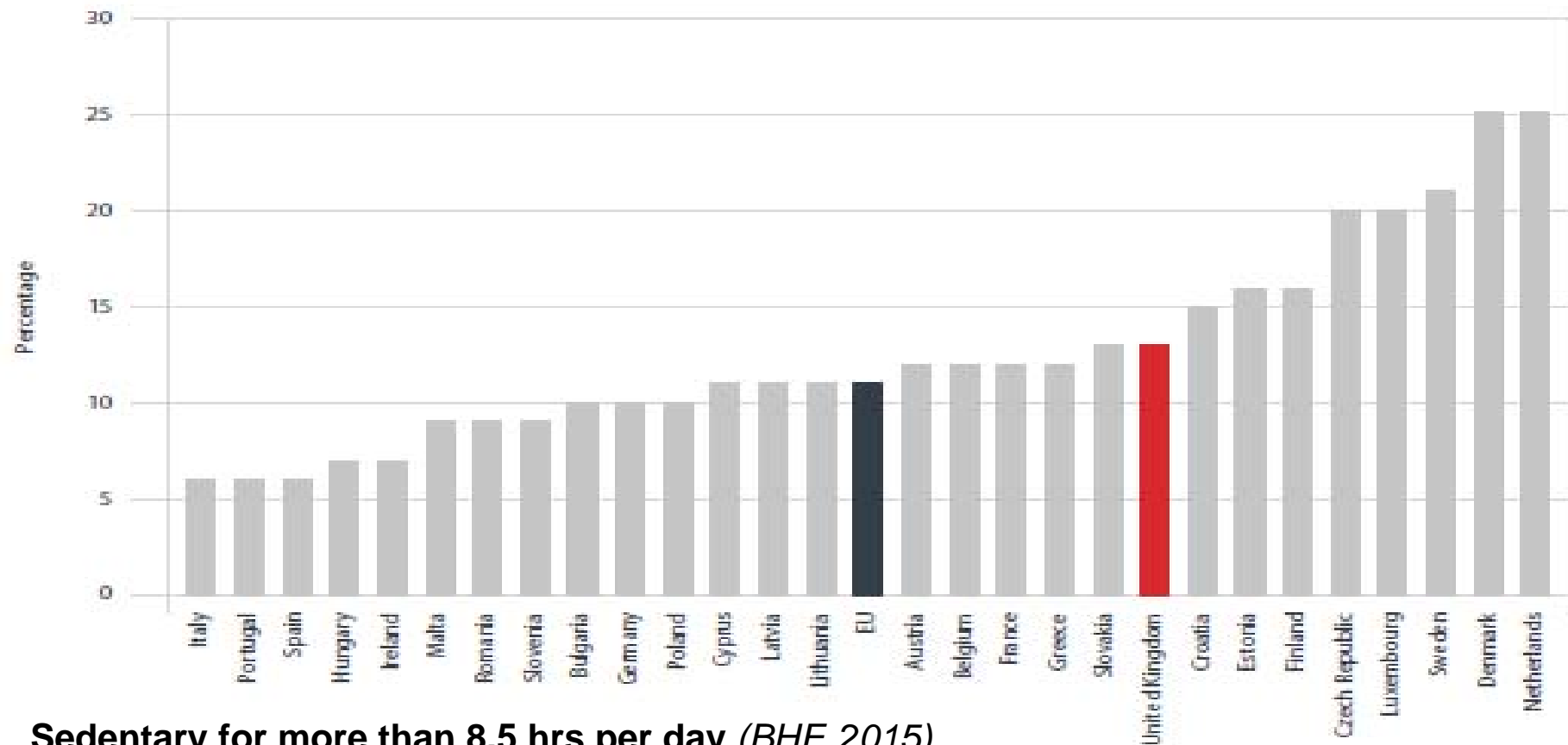
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BACKGROUND: Adults Sedentary Behaviour



Sedentary for more than 8.5 hrs per day (BHF, 2015)

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BACKGROUND: Interdisciplinary approach

DEFINITION

“Interdisciplinary studies is a process of answering a question, solving a problem, or addressing a topic that is too broad or complex to be dealt with adequately by a single discipline, and draws on the disciplines with the goal of integrating their insights to construct a more comprehensive understanding”
(Repko, 2011, p.16)

KEY THEMES AND DRIVERS

- Sociocultural and economic trends in education and workforce
- Development of the discipline(s)

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BACKGROUND: Interdisciplinary teaching strategies

(Lyall, Meagher, Bandola and Kettle, 2015)

INTERACTIVE METHODS

- Project-based learning (PBL)
- **Case study methods**
- Role-playing
- Simulations
- Virtual methods
- Peer-assessment and review
- Peer-assisted learning (PAL)
- Small-group teaching

CO-TEACHING / TEAM TEACHING

- **Co-creation of syllabus and case studies**
- **Advanced planning and negotiation with co-teacher**
- **Co-advising with industry representatives**
- Taking turns in teaching
- Creating learning community

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BACKGROUND: Why case study?

- Case study provides a form of inquiry that elevates a view of life in its complexity (*Thomas, 2011*)
- Case study imitate real-life settings and real-world complexities and are highly dependent on students' individual efforts. (*Goodman and Huckfeldt, 2013*)
- case-based teaching led to students' stronger critical-thinking skills (89.1%)
- better ability to make connections across multiple content areas (82.6%)
- deeper understanding of concepts (90.1%)
(*Herreid, 2011*)

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PROJECT DESIGN



- *Management, monitoring & evaluation*
- **Needs analysis**
- **Module development**
- **Training concept development**
- **Piloting, review & validation**
- *Quality assurance*
- *Sustainability*

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NEEDS ANALYSIS



Healthy Lifestyle, Sports and Physical Activity

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SURVEY RESULTS

Gender	Respondents	%
Male	426	65 %
Female	234	35 %
Total	660	100.0 %

Country	Respondents	%
Belgium	99	15.0 %
Denmark	73	11.1 %
Lithuania	92	13.9 %
Portugal	86	13.0 %
Spain	76	11.5 %
The Netherlands	167	25.3 %
The United Kingdom	67	10.2 %
Total	660	100.0 %

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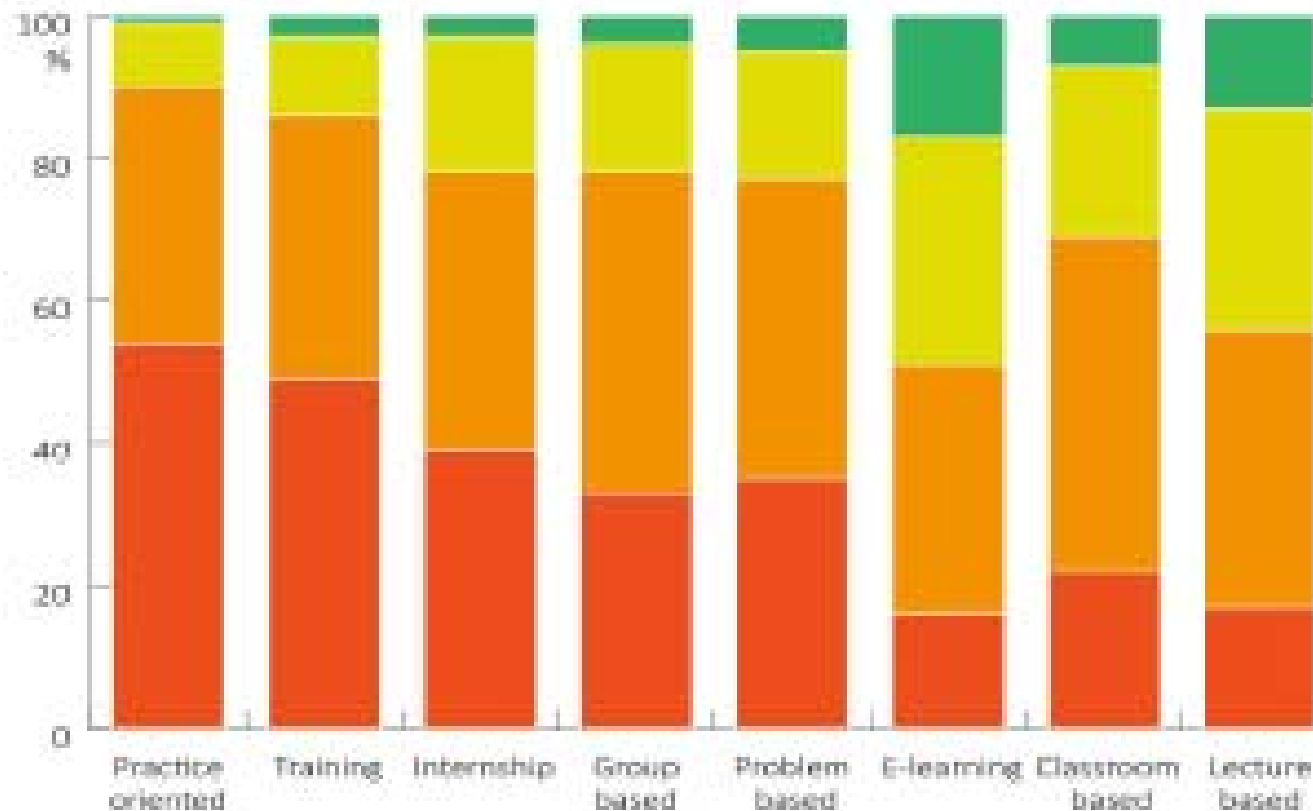
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NEEDS ANALYSIS

IMPORTANT LEARNING METHODS

IMPORTANT LEARNING METHODS



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NEEDS ANALYSIS

MOST IMPORTANT CONTENT

Top 5 among PETE students:

1. Changing behaviour and motivation theories: 92 %
2. Physical activity for specific groups: 89 %
3. Personal leadership: 86 %
4. Health policy: 82 %
5. Nutrition: 79 %

Least important is: *Specific epidemiology* (62 %).

Top 5 among students in the field of coaching/training:

1. Changing behaviour and motivation theories: 88 %
2. Personal leadership: 85 %
3. Nutrition & Health Policy: 82 %
4. Physical activity for specific groups & Testing and exercise prescription: 78 %

Least important is: *Specific epidemiology* (60 %).

Experts: What is the most important content to focus on?

- Content such as health policy, motivation theory and nutrition
- General packages relevant for every sports discipline (for example nutrition)
- Specific content focusing on the possibility of specialisation.

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MODULE DEVELOPMENT

	Themes / Scientific approaches	Responsible partner	Co-developer (PE)	Co-developer (CO)
1	<ul style="list-style-type: none"> Changing behavior + Motivational Theories Specific target groups 	Hanze	LSU	NOC*NSF
2	<ul style="list-style-type: none"> Health Policy Personal 	SDU	VUB	ICCE and ESDRM
3	<ul style="list-style-type: none"> Changing behavior + Motivational Theories Health Policy 	VUB	LSU	NOC*NSF and ESDRM
4	<ul style="list-style-type: none"> Nutrition Personal leadership 	CCCU	SDU	ICCE
5	<ul style="list-style-type: none"> Changing behavior + Motivational Theories Testing & prescription 	Hanze	LSU	NOC*NSF

For each theme, **two complex HEPA case studies** were submitted by each responsible partner for peer evaluation – one case study selected for generating a new module.

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MODULE DEVELOPMENT

	Title: Complex HEPA challenge	Responsible partner	Co-developer (PE)	Co-developer (CO)
1	<ul style="list-style-type: none"> Stimulating sport and physical activities for children with special needs towards a brighter future 	Hanze	LSU	NOC*NSF
2	<ul style="list-style-type: none"> Promoting HEPA among children and youth 	SDU	VUB	ICCE and ESDRM
3	<ul style="list-style-type: none"> A healthy lifestyle for the whole family! 	VUB	LSU	NOC*NSF and ESDRM
4	<ul style="list-style-type: none"> Nutrition, digital technology and physical activity for adults 	CCCU	SDU	ICCE
5	<ul style="list-style-type: none"> Influencing and monitoring behaviour towards HEPA 	Hanze	LSU	NOC*NSF

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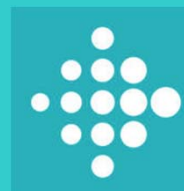
MODULE DEVELOPMENT

The Challenge: Nutrition, digital technology and physical activity for adults

The Case: You (and your team) have been tasked by your professional body to develop a **programme of health enhancing physical activity for a new client group, middle-aged adults (40-59).**

*This programme will be piloted in your region in the first instance with the intention of rolling it out nation-wide. Your programme needs to bring together various policies, provisions and stakeholders that provide Physical Activities for this age group. **The unique characteristic of this programme will be the integration of information and wearable technology to support participants in their journey to participate in walking sports or other physical activities; to understand the changes of the human body; and the impact of nutrition and physical activity on their health.***

Fitbit
By Fitbit, Inc



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MODULE DEVELOPMENT: Module templates

- Title
- The Issue
- The Setting
- The Complex HEPA Challenge
- Module handbook *23 parameters
- ***Learning outcomes (LO)**
 - Level 4-5 (Vocational)
 - Level 6 (Bachelors)
 - Level 7 (Masters)
- ***Student assignment(s)**
 - Task 1: Knowledge Enrichment Activity (20%)
 - Task 2: Assignment: Scientific report (group task) (40%)
 - Task 3: Portfolio of engagement with clients and the workplace (individual task) (40%)

Week to week schedule		
Week	Subject	Topic .. Content
1/2	Introduction	Nutrition and physical activity
3/4	Nutrition	Concepts and physical activity
5/6	Nutrition	Physiological applications and HEPA
7/8	Nutrition	Physiological applications and HEPA
9/10	Field trip	Target population settings
10/11	Digital technology	Technology for health enhancing physical activity
13/14	Leadership	Practical Workshop: Walking physical activities for participants
15/18 -20	Work based learning	Tutor and peer consultations
22-25	Preparation Assessment	Tutorials

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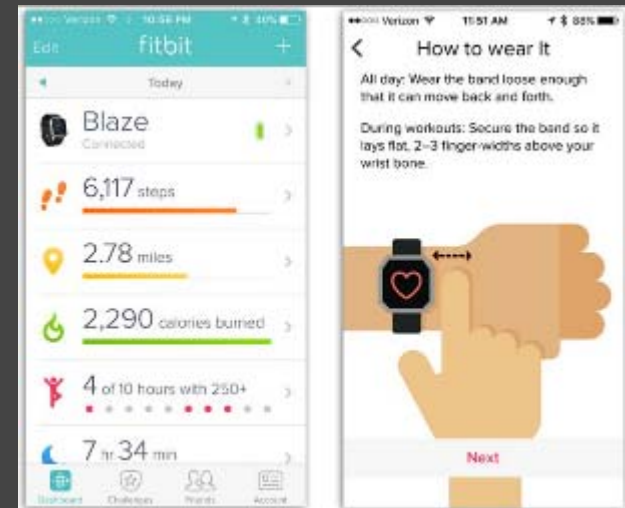
TRAINING CONCPET DEVELOPMENT

LEARNING OUTCOME

3. Record, analyse, interpret and critically evaluate data in this field, including the use of digital technology.

ASSESSMENT TASKS

Task 2: Assignment: Scientific report (group task) (40%)



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TRAINING THE TRAINERS

Case based challenge: wearable technology

Class based learning & Group work

Activity



- ❖ Lab work: review wearable technology and apps that will be of interest to your client group for nutrition and physical activity.
- ❖ Discuss your findings with your classmates and share your findings. Upload your findings to a virtual learning environment that can be accessed by you and your future clients.
- ❖ *Web links, Books, Journals, Reports*

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PILOTING THE MODULES

- From 6-10 February 2017, **65 students from eight European countries** joined the international SPEACH week hosted at Hanze University of Applied Sciences Groningen, The Netherlands.
- Each module was piloted through **20 hours** of intensive **team teaching** in one week by trained teachers in HE.
- **Three newly developed HEPA modules** were taught in authentic educational and field settings.



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- **Student feedback**

I know how to promote a healthy lifestyle through sport ($p < .001^{***}$)

I know how to adapt a curriculum to fit HEPA needs ($p < .000^{***}$)

I know how to design a health promotion programme ($p < .000^{***}$)

I know how to motivate children (and parents) for a healthy lifestyle? ($p < .015^*$)

PILOTING AND EVALUATING THE MODULES

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SPEACH: supporting physical education teachers and sports coaches to promote an active and healthy lifestyle



Register and download the
HEPA modules now!

The Sport, Physical Education and Coaching in Health (SPEACH) project
Bringing Health Enhancing Physical Activity (HEPA) into sports

Go directly to our modules



Special Needs

Stimulating sport and physical activities for children with special needs



Policy Approach

Promoting HEPA among children and youth



Healthy Family

Healthy Lifestyle for the whole family!



Physically Active Adults

Nutrition, digital technology and HEPA for adults



Influencing Behaviour

Influencing & monitoring behaviour towards HEPA

Conclusion

DEVELOPING HEALTH ENHANCING PHYSICAL ACTIVITY MODULES FOR HIGHER AND VOCATIONAL EDUCATION

- The development of the five modules by three partners from different institutions and **disciplines** was a transformational journey.
- The **combination of areas of content** required the use of **team teaching** approaches in Higher Education.
- Students were delighted that theory and practice were combined in each module through **case studies and a variety of teaching activities**.
- Students felt **that interdisciplinary modules** were authentic to the studies and the assessments provided a focus on the content and children, young people, adults and their families as one would in the **world of work**.

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Thank you for listening

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